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Slithering and Scampering: The Reptiles and Amphibians of Badlands National Park

Badlands National Park lies near the middle of the North American land mass. As a result, the climate here is considered to be continental. Continental climates are famous for their extremes in weather. Despite conditions that render us "semi-arid," plants and animals thrive here. Two types of animals that many might not expect to find in such an area are reptiles and amphibians. The only poisonous snake in Badlands National Park is the prairie rattler - the least aggressive of all pit vipers. Prairie rattlers do not want anything to do with you. To avoid them, wear closed toe shoes when walking in grass. Look into cracks and crevices before you place your hands or feet. Listen for the telltale S-s-s-s-s of the rattler and stop, look, and back away. Contrary to popular belief, they do not "stalk" or follow you. They strike large objects only for self-protection.

The Word on Reptiles

Reptiles have been around for millions of years. Scientists believe the first reptiles developed around 300 million years ago. Reptiles have a characteristic scaly skin and claws on their appendages. These animals are cold-blooded, which means they have body temperatures that fluctuate with the temperature of the environment around them. These animnals will seek refuge when the weather is either extremely hot or cold to prevent their bodies from reaching extreme temperatures. In Badlands National Park, our reptiles burrow into the mud when winter approaches. The animals then slow down their metabolisms to extremely low levels. This is called *hibernation*. The reptiles will emerge again the next spring when the weather warms up. Reptiles include lizards, snakes, crocodiles, turtles, iguanas, alligators, chameleons, geckos, and skinks. Reptiles vary greatly in size and diet. A turtle might eat plants and insects while an alligator may eat a large mammal. A majority of reptiles live in the tropics; however, they can live in many types of climates and habitats.

Turtles Snapping Turtle (Chelydra serpentina serpentina) (Rare)

Western Painted Turtle (Chrysemys picta belli) (Common)

Lizards Eastern Short-horned Lizard (*Phrynosoma douglassi brevirostre*) (Rare)

Snakes Eastern Yellowbelly Racer (Coluber constrictor flaviventris) (Common)

Plains Hognose Snake (*Heterodon nasicus nasicus*) (Rare) Pale Milk Snake (*Lampropeltis triangulum multistrata*) (Rare)

Bullsnake (*Pituophis melanoleucus sayi*) (Common)

Western Plains Garter Snake (*Thamnophis radix haydeni*) (Common) Red-sided Garter Snake (*Thamnophis sirtalis parietalis*) (Common)

Prairie Rattlesnake (Crotalus viridis viridis) (Common)

Warming Up to Amphibians

Like reptiles, amphibians are also cold-blooded. Scientists tell us that these animals evolved before reptiles about 350 million years ago. Amphibians lack the scaly, rough skin of most reptiles. Instead, most amphibians have soft, wet skin. They depend on water to keep their eggs wet and for survival during the larval stage of life. Later in life, most amphibians develop lungs and make their way onto land.

Most live near ponds, streams, or other wet areas. Those living in drier enviroments may live underground and come out after a rainfall. Amphibians live primarily on a diet of insects. In addition to breathing through their lungs, amphibians can breathe through their skin and mouth lining. Mating occurs primarily during the rainy season. Because amphibians have such a thin sensitive skin, they are very susceptile to water pollution and human-produced chemicals. Even the salts from our skin can affect them when we handle amphibians. Some species of amphibians have experienced drastic declines in recent years. Scientists are still uncertain why this decline has occurred; however, most feel that human activities are the major cause.

Salamanders Blotched Tiger Salamander (Ambystoma tigrinum melanostictum)

(Uncommon)

Toads Great Plains Toad (*Bufo cognatus*) (Common)

Woodhouse's Toad (*Bufo woodhousei woodhousei*) (Common) Plains Spadefoot (*Scaphiopus bombifrons*) (Uncommon)

Frogs Boreal Chorus Frog (Pseudacris triseriata maculata) (Common)

Western Chorus Frog (Pseudacris triseriata triseriata) (Common)

Northern Leopard Frog (Rana pipiens) (Common)

The Plight of the Cold-Blooded

Reptiles and amphibians are disappearing around the world. Quickly. Quietly. Many species are quickly becoming rare where once common while others are nearing extinction at an alarming rate. Those remaining are beginning to change – through mutations and deformities.

Why this cold-blooded holocaust? Scientists believe that amphibians are soaking up the toxins found in rivers, lakes, and streams through their thin, permeable skin – like four-legged sponges. Some fertilizers have been linked due to their nitrogen content. Levels of nitrogen safe enough for human consumption can kill juvenile frogs. Others look to the sky, concerned that increased solar radiation may be negatively affecting reptiles and amphibians alike. A thin ozone may lead to thinning cold-blooded animal populations.

But then, why should we care? A fear of snakes is listed worldwide as the #2 most common phobia. Wouldn't we sleep easier without snakes slithering through our dreams? While we individually may loathe snakes – and some of us fear frogs and toads – we should also pay close attention to their decline. Reptiles and amphibians are "indicator species" - they have the ability to help predict the future, like ecological crystal balls. Because of their form and function, reptiles and amphibians are more sensitive to ecological trauma, such as pollution, than other mobile life. This means that creepy crawlies and ungainly hoppers are telling us something. If they disappear, we may be next.

P.S. The #1 human fear worldwide is public speaking. Remember that when you attend a ranger program and applaud that brave ranger or volunteer!